

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization  
International Bureau

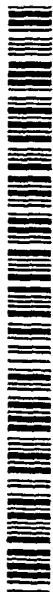


(43) International Publication Date  
2 August 2001 (02.08.2001)

PCT

(10) International Publication Number  
**WO 01/56216 A3**

- (51) International Patent Classification<sup>7</sup>: G01N 33/48, 33/50, G06F 17/60
- (21) International Application Number: PCT/US01/02316
- (22) International Filing Date: 24 January 2001 (24.01.2001)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:  
60/178,077 25 January 2000 (25.01.2000) US
- (71) Applicant (*for all designated States except US*):  
AFFYMETRIX, INC. [US/US]; 3380 Central Expressway, Santa Clara, CA 95051 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (*for US only*): CRAFTORD, David, M. [US/US]; 1027 Ray Avenue, Los Altos, CA 94022 (US).  
NORVIEL, Vernon, A. [US/US]; 1155 El Abra Way, San Jose, CA 95125 (US).
- (74) Agent: SHERR, Alan, B.; Affymetrix, Inc., 34 Commerce Way, Woburn, MA 01801 (US).
- (81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.
- (84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).
- Published:  
-- with international search report
- (88) Date of publication of the international search report:  
7 March 2002
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*



WO 01/56216 A3

(54) Title: METHOD, SYSTEM AND COMPUTER SOFTWARE FOR PROVIDING A GENOMIC WEB PORTAL

(57) Abstract: Systems, methods, and computer program products are described that process inquiries or orders regarding purchase of biological devices, substances, or related reagents. In some implementations, a user selects probe-set identifiers that identify microarray probe sets capable of enabling detection of biological molecules. Corresponding genes or EST's are identified and are correlated with related product data, which is provided to the user. Further, the user may select products for purchase based on the product data. If so, the user's account may be adjusted based on the purchase order. In the same or other implementations, a local genomic database is periodically updated. In response to a user selection of probe-set identifiers, data related to corresponding genes or EST's is provided to the user from the local genomic database.

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/US01/02316

**A. CLASSIFICATION OF SUBJECT MATTER**

IPC(6) : G01N 33/48, 33/50; G06F 17/60

US CL : 702/19, 20; 705/26, 27

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 702/19, 20; 705/26, 27

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)  
Please See Continuation Sheet**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5,630,125 A (ZELLWEGER) 13 May 1997, See Figures 3, 7, 8, and 14, and entire text.	1-30, 98-103
---		-----
A		31-97
Y, P	US 6,188,783 B1 (BALABAN et al. ) 13 February 2001, Figure 2A, 4 and entire text.	1-30, 98-103
Y, P	EP 1 043 667 A2 (SAISCHEK, J) See Figures, and Abstract.	1
---		-----
A		2-103
Y	HOQUE, R. A Shopping Cart Application with JavaScript. WebTechniques May 1998, Vol. 3, No. 5, pages 63-68, see entire text.	1-103
Y	WALDROP, M.M.. On-Line Archives Let Biologists Interrogate the Genome. Science, 8 September 1995, Vol. 269, Pages 1356-1358, see entire text.	1-28, 98-103
Y, P	THAYER, A.M. Bioinformatics for the Masses. Business, 7 February 2000, Vol. 78, No. 6, Pages 19-32, see entire text.	1-103
A	LIPSHUTZ, R. J. et al. High Density Synthetic Oligonucleotide Arrays. Nature Genetics Supplement, January 1999, Vol. 21, pages 20-24, see entire text.	1-103

☐ Further documents are listed in the continuation of Box C.☐ See patent family annex.

\* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T"

later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X"

document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y"

document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&amp;"

document member of the same patent family

Date of the actual completion of the international search

19 July 2001 (19.07.2001)

Date of mailing of the international search report

30 AUG 2001

Name and mailing address of the ISA/US

Commissioner of Patents and Trademarks  
Box PCT  
Washington, D.C. 20231

Facsimile No. (703)305-3230

Authorized officer

Mary K Zeman

Telephone No. 703 308

TERRY J. DEY  
PARALEGAL SPECIALIST  
TECHNOLOGY CENTER 1600

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/US01/02316

## Box I Observations where certain claims were found unsearchable (Continuation of Item 1 of first sheet)

This international report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claim Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claim Nos.:  
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claim Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of Item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:  
Please See Continuation Sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☒ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest ☐ The additional search fees were accompanied by the applicant's protest.  
☐ No protest accompanied the payment of additional search fees.

**BOX II. OBSERVATIONS WHERE UNITY OF INVENTION IS LACKING** This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1. In order for all inventions to be examined, the appropriate additional examination fees must be paid.

Group I, claim(s) 1-30, 98-103, drawn to Systems for providing data to a user which comprises an input manager, gene determiner, a correlator that correlates genes with data, and an output manager, as well as methods of providing data to a user, and the computer program product that is capable of executing the method.

Group II, claim(s) 31-34, 82-97, drawn to a Second System for providing data to a user wherein the input is through the internet, and the correlator correlates genes with products and/or devices.

Group III, claim(s) 35-38, drawn to a Third System for providing data to a user, wherein the system correlates genes with pricing information, and the system additionally comprises an account processor.

Group IV, claim(s) 39-43, drawn to a Fourth System for providing data wherein the system comprises a "Gene-to order correlator".

Group V, claim(s) 44-48, drawn to a non-computer based method of processing an order, comprising receiving data from user, correlating that data with genes or EST's, correlating this information to a product, and providing the product data to the user.

Group VI, claim(s) 49-52, drawn to methods of placing an order through an internet portal.

Group VII, claim(s) 53-81, drawn to a Fifth System of providing data to a user wherein the system comprises a database manager, and a user service manager.

The inventions listed as Groups I-VII do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: Each System identified above has differing components, features, or architecture for the purposes of providing differing types of data to the user. The different intended uses of the systems and differing methods of use of the systems do not share a special technical feature, and do not relate to a single general inventive concept.

**Continuation of B. FIELDS SEARCHED Item 3:** USPatfull, WPIDS, Europatfull, JAPIO, Medline, Scisearch, Pascal, etc. Search Terms: DNA array or genechip (et. al.) Online, Internet, Web, Vendor, Purchase, Sell, Product, et al.